

Serial No. 10/675,402

134122-1

**Listing of the Claims**

This listing of claims will replace all prior versions, and listings, of claims in this application. Please amend the claims as follows:

Claims 1. – 11. (cancelled)

Claim 12. (currently amended) A method of recovering hydrogen comprising:

contacting at least one compound in hydrogen to form a nitrogen-free hydrogenated compound; wherein the compound is AlLi, Al<sub>2</sub>Li<sub>3</sub>, Al<sub>4</sub>Li<sub>9</sub>, Al<sub>3</sub>Mg<sub>2</sub>, Al<sub>12</sub>Mg<sub>17</sub>, AlB<sub>12</sub>, Ge<sub>4</sub>K, GeK, GeK<sub>3</sub>, GeLi<sub>3</sub>, Ge<sub>5</sub>Li<sub>22</sub>, Mg<sub>2</sub>Ge, Ge<sub>4</sub>Na, GeNa, GeNa<sub>3</sub>, aluminum doped Ge<sub>4</sub>K, aluminum doped GeK, aluminum doped GeK<sub>3</sub>, aluminum doped GeLi<sub>3</sub>, aluminum doped Ge<sub>5</sub>Li<sub>22</sub>, aluminum doped Mg<sub>2</sub>Ge, aluminum doped Ge<sub>4</sub>Na, aluminum doped GeNa, aluminum doped GeNa<sub>3</sub>, or a combination comprising at least one of the foregoing compounds; and

heating the hydrogenated compound to recover the hydrogen.

Claim 13. (currently amended) The method of Claim 12, wherein the heating is conducted using microwave radiation, convectional heating, ~~electrical resistive heating~~, or a combination comprising at least one of the foregoing methods of heating.

Claim 14. (Original) The method of Claim 12, further adding a dopant comprising titanium, vanadium zirconium, yttrium, lanthanum, nickel, manganese, cobalt, silicon, gallium, germanium, and the elements from the lanthanide series to the compound in an amount of less than or equal to about 20 wt% of the compound.

Claim 15. (Original) The method of Claim 12, wherein the heating is effected by the heat from the exhaust of a fuel cell.

Claims 16-28. (cancelled)